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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/632,662	08/04/2000	Jeff S. Ford	1247/A53	2282

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LEE & HAYES PLLC
421 W RIVERSIDE AVENUE SUITE 500
SPOKANE, WA 99201

EXAMINER

LEE, MICHAEL

ART UNIT	PAPER NUMBER
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2614

16

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/632,662

Applicant(s)

FORD ET AL.

Examiner

M. Lee

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36,42-45,52 and 53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36,42-45,52 and 53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 14.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 1/16/04 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Art Unit: 2614

3. Claims 1, 3-9, 12, 14-17, 19-25, 28, 30-32, 34-36, 42-45, 52 and 53 are rejected under 35 U.S.C. 102(e) as being anticipated by Glen (6,157,415).

Regarding claims 1, 17, 32, Glen discloses a video mixing system showing an input terminal for receiving different kinds of video signals (Figure 2), either from live video sources or video storages or memories, which meets the video input module and the memory as claimed, a multiplexer 32 for receiving either a live video signal or a stored video signal, which meets the first multiplexer as claimed, a color base conversion module 42, which meets the first video pipeline as claimed, a multiplexer 34 for receiving another live video signal or another stored video signal, which meets the second multiplexer as claimed, and a color base conversion module 44, which meets the second video pipeline as claimed.

Regarding claims 3, 19, the live video signal in Glen is formatted in either analog or digital.

Regarding claims 4, 20, the input signals in Glen include color data.

Regarding claims 5, 21, the input signals in Glen include RGB encoded video signal.

Regarding claims 6, 7, 8, 22-24, the output signals in Glen are intended to be provided different medium, such as storage medium, video graphics processors, and display media.

Regarding claims 9, 25, Glen inherently includes sampling rate-changing function because the resolutions of the input video signals are needed to be changed to different

Art Unit: 2614

resolutions as the output. Such changes require either up-sampling or down-sampling operation.

Regarding claims 12, 28, Glen shows color space conversion operations (col. 11, lines 34-49).

Regarding claims 14, 30, Glen indicates a scaling process (see Figures 4 and 5).

Regarding claims 15, 31, Glen inherently addresses the video signal in a frame-by-frame basis since ATSC or HDTV or formatted in frames.

Regarding claim 16, the system in Glen functions as a PCI circuit board because it interconnects peripheral video input devices with video output devices.

Regarding claims 34 and 35, the multiplexers 32, 34, 36, and 38 enable each of the color base conversion modules 42, 44, and 46 to be provided with similar or different video input signals.

Regarding claim 36, Glen further shows a multiplexer 54 for routing a pre-processed video signal to an output, which meets the third multiplexer as claimed, and a multiplexer 56 for routing a pre-processed video signal to an output, which meets the fourth multiplexer as claimed.

Regarding claims 42-45, 52 and 53, see the similar reasons as recited above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 10, 11, 13, 18, 26, 27, 29, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glen (6,157,415).

Regarding claims 2, 18, 33, Glen does not specify the ancillary data extractor as claimed. In any event, using ancillary data extractor or data separator for extracting additional data inserted into a television or video signal is well known in the art. For instance, teletext or closed caption display function is commonly found in television receivers, which all inherently include a teletext extractor. By including such extractor, additional information inserted in the television signal can be readily extracted and utilized without ever increased the transmission bandwidth of the existing channel. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to include an ancillary data extractor into Glen so that the additional data can be fully utilized by the viewer without further increase the bandwidth of the television transmission channel.

Regarding claims 10, 11, 26, 27, Glen does not specify that the process of pre-processing includes gamma removal or insertion as claimed. It is well known that gamma correction is inherently included in standard television signals in order to compensate natural deficiency of CRT displays. However, such correction is not suitable for other types of displays, such as LCD or plasma. LCD and plasma displays have their respective own natural deficiencies and therefore they also needed to be compensated properly with their respective gamma corrections. If the output display device in Glen is a LCD or plasma, the original CRT gamma correction on the television

Art Unit: 2614

signal must be removed before applying LCD or plasma gamma correction. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to include a gamma remover or inserter into Glen so that the gamma corrections could be carried out properly.

Regarding claims 13, 29, Glen does not specify the process of pre-processing includes dithering. The resolutions of the input signals in Glen can be much higher than the resolutions can be handled by the color base conversion modules because the binary word length in the modules is finite and unable to represent all the colors of the input signals. This problem is inherent in all digital processing circuits. Conventionally, in order to approximate the original color as close as possible with a finite word length, dithering technique is employed. This technique enables original colors to be simulated with finite bit words without exhausting the resources in the processing circuit. This in turn increases the overall system processing speed. Hence, in order to closely capture the original colors without increasing the overall system processing time, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the well known dithering function into Glen to perform the well known functions as claimed.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Lee whose telephone number is **703-305-4743**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John Miller**, can be reached at **703-305-4795**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



M. Lee
Primary Examiner
Art Unit 2614

April 27, 2004